## **CLAIMS**

We claim:

forming a first layer on a substrate;
forming a second layer on the first layer;

A method comprising:

removing at least a portion of the first layer; and allowing the first layer to strain the second layer.

- 2. The method of Claim 1, further comprising: forming a gate electrode on the second layer.
- 3. The method of Claim 2, wherein the first layer and the second layer are formed in a channel region beneath the gate electrode.
- 4. The method of Claim 2, further comprising: forming a first spacer adjacent to a first side of the gate electrode; and

forming a second spacer adjacent to a second side of the gate electrode.

- 5. The method of Claim 4, wherein the first layer and the second layer are formed in a channel region beneath the gate electrode and the first and second spacers.
- 6. The method of Claim 1, further comprising: forming a first source/drain region in a first area from which a portion of the first layer was removed; and forming a second source/drain region in a second area from which a portion of the first layer was removed.
  - 7. A method comprising:
    forming a silicon germanium layer on a substrate;
    forming a silicon layer on the silicon germanium layer;

removing at least a portion of the silicon germanium layer; and

allowing the silicon germanium layer to strain the silicon layer.

- 8. The method of Claim 7, further comprising: forming a gate electrode on the silicon layer.
- 9. The method of Claim 8, wherein the silicon germanium layer and the silicon layer are formed in a channel region beneath the gate electrode.
- 10. The method of Claim 8, further comprising: forming a first spacer adjacent to a first side of the gate electrode; and

forming a second spacer adjacent to a second side of the gate electrode.

- 11. The method of Claim 10, wherein the silicon germanium layer and the silicon layer are formed in a channel region beneath the gate electrode and the first and second spacers.
  - 12. The method of Claim 7, further comprising:

forming a first source/drain region in a first area from which a portion of the silicon germanium layer was removed; and

forming a second source/drain region in a second area from which a portion of the silicon germanium layer was removed.

13. A method comprising:

forming a silicon carbide layer on a substrate; forming a silicon layer on the silicon carbide layer;

removing at least a portion of the silicon carbide layer; and

allowing the silicon carbide layer to strain the silicon layer.

- 14. The method of Claim 13, further comprising: forming a gate electrode on the silicon layer.
- 15. The method of Claim 14, wherein the silicon carbide layer and the silicon layer are formed in a channel region beneath the gate electrode.
- 16. The method of Claim 14, further comprising: forming a first spacer adjacent to a first side of the gate electrode; and

forming a second spacer adjacent to a second side of the gate electrode.

- 17. The method of Claim 16, wherein the silicon carbide layer and the silicon layer are formed in a channel region beneath the gate electrode and the first and second spacers.
- 18. The method of Claim 13, further comprising:
  forming a first source/drain region in a first area
  from which a portion of the silicon carbide layer was
  removed; and

forming a second source/drain region in a second area from which a portion of the silicon carbide layer was removed.

- 19. An apparatus comprising:
- a substrate;
- a strain-inducing layer disposed on the substrate; and
- a strained layer disposed on the strain-inducing layer.

- 20. The apparatus of Claim 19, further comprising: a gate electrode disposed on the strained layer;
- a first spacer disposed adjacent to a first side of the gate electrode; and
- a second spacer disposed adjacent to a second side of the gate electrode.
- 21. The apparatus of Claim 20, wherein the strain-inducing layer and the strained layer are disposed in a channel region beneath the gate electrode.
- 22. The apparatus of Claim 21, wherein the strain-inducing layer and the strained layer are disposed in a channel region beneath the gate electrode and the first and second spacers.
- 23. The apparatus of Claim 19, wherein the apparatus comprises:

an n-type metal oxide semiconductor.

24. The apparatus of Claim 23, wherein the strain-inducing layer comprises:

silicon germanium.

- 25. The apparatus of Claim 24, wherein germanium comprises between approximately 20 and 25 percent of the silicon germanium.
- 26. The apparatus of Claim 24, wherein the silicon germanium layer has a thickness of between approximately 400 and 500  $\hbox{\AA}$ .
- 27. The apparatus of Claim 26, wherein the strained layer comprises silicon and has a thickness of between approximately 100 and 200 Å.

28. The apparatus of Claim 19, wherein the apparatus comprises:

a p-type metal oxide semiconductor.

29. The apparatus of Claim 28, wherein the strain-inducing layer comprises:

silicon carbide.

- 30. The apparatus of Claim 29, wherein carbon comprises between approximately 1 and 2 percent of the silicon carbide.
  - 31. A system comprising:

an integrated circuit package comprising

a substrate,

a strain-inducing layer disposed on the substrate, and

a strained layer disposed on the strain-inducing layer.

32. The system of Claim 31, wherein the system comprises:

an n-type metal oxide semiconductor.

33. The system of Claim 32, wherein the strain-inducing layer comprises:

silicon germanium.

- 34. The system of Claim 33, wherein germanium comprises between approximately 20 and 25 percent of the silicon germanium.
- 35. The system of Claim 31, wherein the system comprises:

a p-type metal oxide semiconductor.

36. The system of Claim 35, wherein the strain-inducing layer comprises:

silicon carbide.

37. The system of Claim 36, wherein carbon comprises between approximately 1 and 2 percent of the silicon carbide.